

(dashed line) for the embodiment of FIG. 1 as a function of a normalized frequency.

[0024] FIG. 5A illustrates the relative emission (solid line) and extraction efficiency (dashed line) for the embodiment of FIG. 2 as a function of a normalized frequency.

5 [0025] FIG. 5B illustrates the product of the relative emission and the extraction efficiency as a function of a normalized frequency.

[0026] FIGs. 6A-E illustrate steps of a method for making a photonic crystal light emitting diode.

[0027] FIGs. 7A-~~E~~<sup>F</sup> illustrate steps of another method for making a photonic crystal light emitting diode.

10 [0028] FIGs. 8A-G illustrate steps of another method for making a photonic crystal light emitting diode.

[0029] FIGs. 9A-F illustrate steps of another method for making a photonic crystal light emitting diode.

15 [0030] FIGs. 10A-E illustrate steps of another method for making a photonic crystal light emitting diode.

[0031] FIGs. 11A-E illustrate steps of another method for making a photonic crystal light emitting diode.

[0032] FIGs. 12A-E illustrate steps of another method for making a photonic crystal light emitting diode.

20 [0033] FIG. 13 illustrates a packaged LED.

### **DETAILED DESCRIPTION**

[0034] FIG. 1 illustrates an embodiment of a photonic crystal LED ("PXLED") 100. A first electrode layer 104 is formed from a thick and substantially reflective metal. In  
25 some embodiments first electrode layer 104 also serves as a substrate. In some